

The Enterprise Cloud Computing Paradigm

* Explain Enterprise Cloud Computing with its issues.

=> Cloud Computing should align with an Organization's goals such as profit maximization or reduction of operational cost.

-> Deployment Model For Enterprise Cloud Computing:

1 Public Cloud: Managed by third party providers and available to the general public.

2 Private Cloud: Managed Internally by an organization for exclusive use.

3 Community Cloud: Shared among several organization for a specific community.

4 Hybrid Cloud: Combination of two or more cloud.

→ Enterprise Cloud Computing Strategy.

1 Adoption Strategies:

This strategies focus on supporting growing workloads efficiently.

This strategies simplify system administration and access control.

2 Consumption Strategies:

This strategies rely on cloud storage for data while managing software internally.

Implement a hybrid systems strategies that switches between cloud and traditional management based system.

⇒ Issues of Enterprise Cloud Computing.

1 Enterprise Resource Planning:

Moving From legacy system to a

cloud-based ERP involves a significant transformation, integrating IT infrastructure and standardizing business process

2 Transactional Capabilities:

Traditional Transactional systems use a shared everything architecture, while cloud computing often use shared nothing system.

Ensuring ACID properties is challenging in cloud environments.

3 Analytical Capabilities:

Support business reporting, marketing, budgeting, forecasting and decision support.

Cloud environment use Read-mostly or Read-only system to store the data.

Processed via APTs, web services, SQL and data mining tools.

* Challenges of ERP Transition to the cloud.

=> Enterprise cloud management classified into five stages: build, develop, migrate, run and consume.

Each step has unique challenges in ERP.

1 Understanding the state of the Enterprise's IT:

Determine which IT systems and applications are already cloud-compatible and which are not.

Address the issue of unplanned, decentralized cloud usage.

2 Migrating Existing Application:

ERP systems often have long lifecycles necessitating a shift to modern IT paradigms.

Require detailed planning, testing and negotiation to classical software transitions.

3 Reengineering Application:

Redeveloping application for the cloud involves changes in governance, reliability, security and control.

Separation of data management from data ownership, addressing new challenges for data handling and privacy.

4 Operational Challenges:

Managing enterprise IT in the cloud introduces new operational procedures.

Ensure seamless integration and interoperability between in-house infrastructure and cloud service.

5 Consuming the cloud

Resources are reserved and allocated for a fixed period, providing predictability in costs.

Resources are provided as needed with cost based on actual usage.

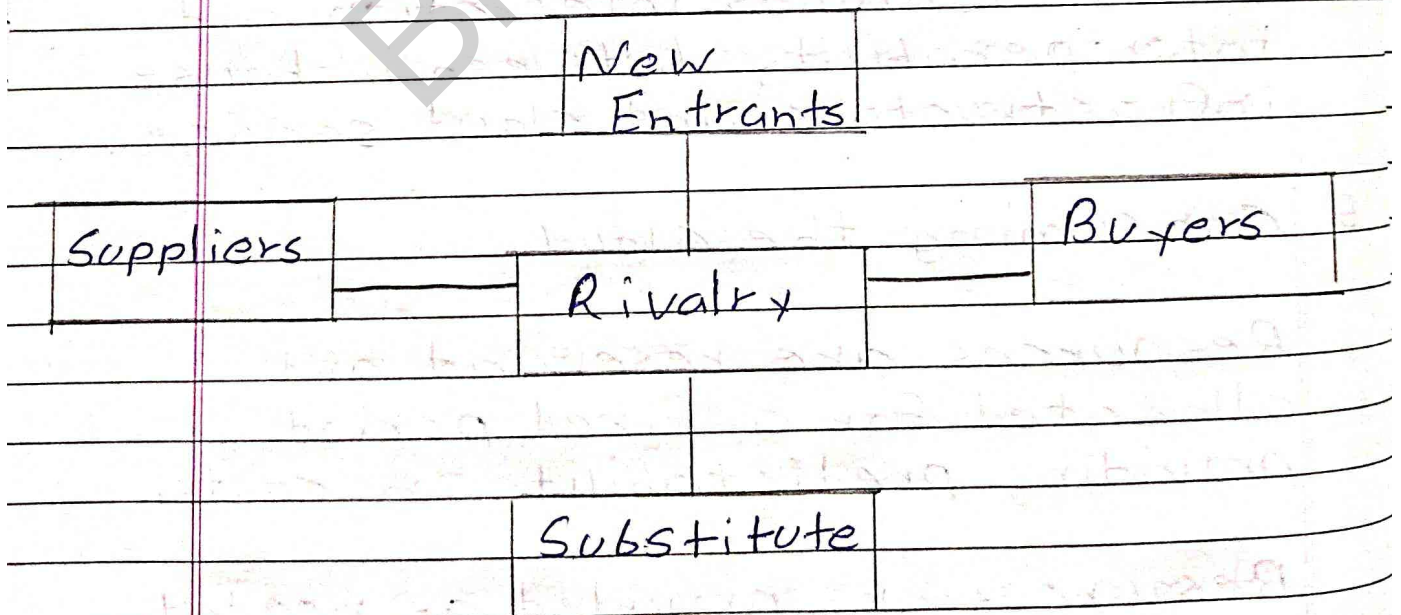
* Business drivers toward a marketplaces For Enterprise cloud Computing.

=> Porter's Five Forces model provides a Framework to understand competitive market of cloud Computing.

This are the Five Key Forces:

1 Rivalry Among Existing Competitors

The cloud computing market is characterized by intense competition due to large number of companies are include in cloud.



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The high level of competition drives innovation.

2 Threat of Substitutes:

The cloud market offers a wide array of cloud products and services.

The diversity of available products means that there are many potential substitutes.

3 Threat of New Entrants:

The cloud computing sector is rapidly growing, attracting numerous new entrants seeking to capitalize on its expanding opportunities.

4 Bargaining Power of Suppliers:

The suppliers of cloud infrastructure face significant amount of initial costs.

Suppliers may also face pressure from cloud service providers to

reduce costs.

5 Bargaining Power of Buyers:

Buyers have relatively low switching costs in the cloud market.

Customers can easily switch between providers based on factor like price, performance etc.

* Explain Cloud Supply Chain:

=> The Cloud Supply Chain consists of two or more parties linked by the provision of cloud services, related information and funds.

-> Categories of Products in Cloud Supply Chain.

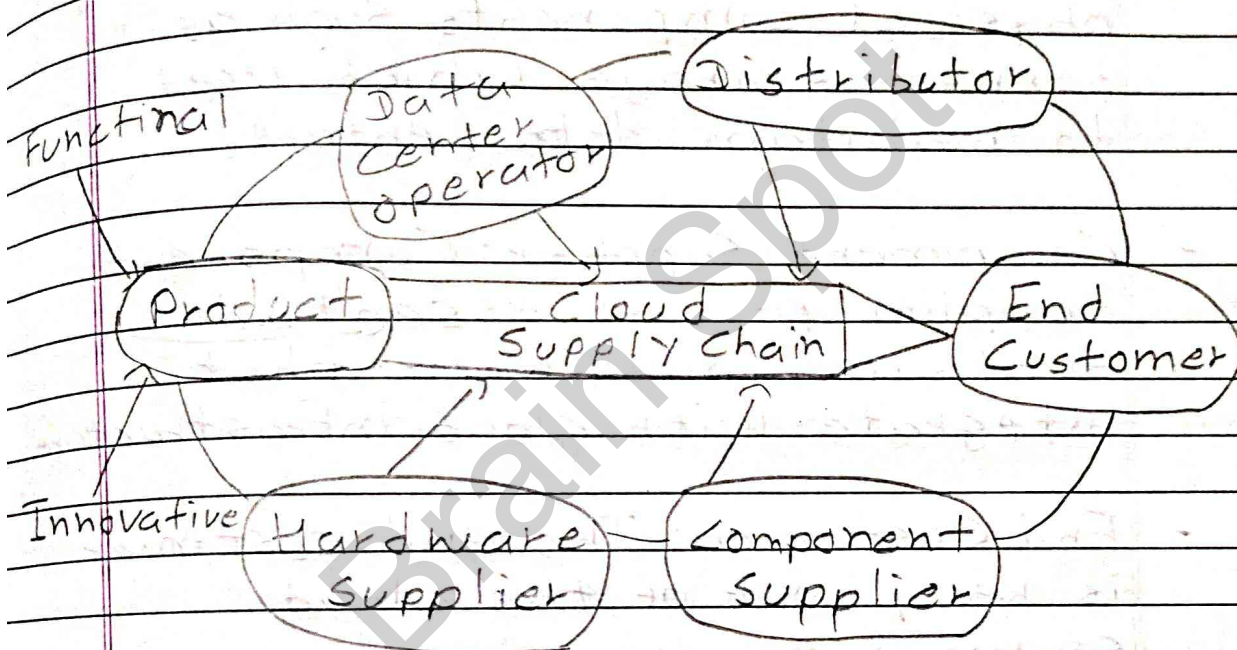
1 Functional Products:

These are products with stable and predictable demand and

generally have low-cost, low-variety.

2 Innovative Products:

These products have unpredictable and variable demand, high uncertainties and short products life cycles.



- Product: Product refers to the cloud-based service or solution that is offered to the end customer.

- Data Center Operator: The data center operator is responsible for managing the physical and virtual resources for cloud services.

- **Distributor:** The Distributor is responsible for delivering cloud services to the cloud and customers.
- **Hardware Supplier:** Hardware supplier provides the necessary physical components such as server, storage which used to maintain data centers.
- **Component Supplier:** Component supplier provide essential software, middleware that integrate with cloud infrastructure.
- **End Customer:** The end customer is recipient of the cloud services.